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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,945	06/06/2000	JOSE VICENTE TOMAS CLARAMONTE	2489-1-001	9439

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EXAMINER

HUFFMAN, JULIAN D

ART UNIT PAPER NUMBER

2853

DATE MAILED: 06/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,945

Applicant(s)

TOMAS CLARAMONTE, JOSE
VICENTE

Examiner

Julian D. Huffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-7, 9, 11, 14-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kneezel (U.S. 5,257,043) in view of Ishinaga.

Kneezel discloses a device for printing on a substrate, the device comprising:
projection means for projecting ink on a substrate in order to print a pattern on the substrate (fig. 5, element 19), the substrate arranged on a conveyor means for conveyance in accordance with a trajectory (fig. 5, element 28);

at least one printing head (20) respectively comprising at least two printing modules (19) that are connected to a control unit (column 3, lines 51-63), each of the printing modules being arranged to project ink on the tile in accordance with a marking width corresponding to a portion of a substrate width;

wherein:

operation of each printing module is independently controlled by the control unit;
the printing modules are arranged to cover the width of the printing substrate (fig. 5);

each printing module is connected to a control unit (column 3, lines 55-63) (fig. 6, element 18);

the printing quality is higher than 200 dpi (column 1, lines 29-31);

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at least as many printing modules are provided as printing colors are required to print the pattern (column 6, lines 2-7); and

each printing module is an extractable module comprising connecting means for individual connection to the printing head (column 5, lines 16-27).

Kneezel does not disclose each printing module comprising an independent processor and an independent memory, nor is a host computer expressly disclosed.

However, Ishinaga discloses an independent processor (4) and memory (6) provided on a printhead unit, which may be one of several units arranged along the width of a substrate (column 8, lines 49-56)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the processor (4) and memory (6) of Ishinaga on the modules disclosed by Kneezel for the purpose of, as taught by Ishinaga, shortening the processing time by mounting control circuits on the print head (column 2, lines 54-56).

With regards to printing on tile, the material or article worked upon does not limit the claimed apparatus. See MPEP 2115.

3. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kneezel in view of Ishinaga as applied to claim 1 and 11 above, and further in view of Kanemitsu (U.S. 5,151,716).

Kneezel as modified does not expressly disclose connection to a host computer.

Kanemitsu discloses a host computer for transmitting instruction signals or recording information to a printer (fig. 9b, element 14, column 6, lines 29-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide communication means in the printer of Kneezel in view of Ishinaga so as to enable connection to a remote computer for the purpose of providing a means to transmit instruction signals and recording data to the printer.

4. Claims 2, 3, 10, 12, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kneezel in view of Ishinaga as applied to claims 1 and 11 above, and further in view of Ohno et al. (U.S. 3,911,448).

Kneezel as modified discloses the marking widths of the modules extending to the marking width of an adjacent module and the modules arranged with a degree of nonalignment since some modules are placed on one face of the print bar and some on the other face of the print bar (fig. 3)

Kneezel as modified does not disclose the modules arranged obliquely with respect to the trajectory of the substrate.

Ohno et al. discloses that mounting recording elements so they are aligned oblique to the traveling direction of the substrate increases the print density (column 9, lines 9-16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Ohno et al. into the invention of Kneezel in view of Ishinaga thereby obtaining the invention claimed for the purpose of increasing the print density.

Conclusion

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (703) 308-6556. The examiner can normally be reached on Monday through Friday from 9:30 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



JH

June 5, 2002



HAI PHAM
PRIMARY EXAMINER